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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,735	10/24/2003	Robert H. Gerber	MS306693.1/MFTP545US	2403

27195   7590   06/10/2008
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EXAMINER
CHOW, CHII CHING

ART UNIT	PAPER NUMBER
2191	

NOTIFICATION DATE	DELIVERY MODE
06/10/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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	Application No.	Applicant(s)
Office Action Summary	10/693,735	GERBER ET AL.
	Examiner	Art Unit	
	CHIH-CHING CHOW	2191	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>17 March 2008</u>.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-6,8-14,16-18 and 23</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-6,8-14,16-18 and 23</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>24 October 2003</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
        application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail. Date _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   This action is responsive to amendment dated March 17, 2008.

2.   Per Applicants' request, claims 1, 8, 14, and 18 have been amended.

3.   Claims 1-6, 8-14, 16-18, 23 remain pending.

Response to Amendment

4.   Applicants' amendment filed on 03/17/2008, responding to the 12/17/2007
Office action provided in the Double Patenting rejection to co-applicant
10/692,885 US 2005/0091184 claims for claim 18 or current application. The
examiner has reviewed the amended claims 18 respectfully. The rejection to the
Double Patenting rejection to co-applicant 10/692,885 is hereby withdrawn in view
of Applicants' amended claim 18.

Double Patenting

5.   The nonstatutory double patenting rejection is based on a judicially created
doctrine grounded in public policy (a policy reflected in the statute) so as to
prevent the unjustified or improper timewise extension of the "right to exclude"
granted by a patent and to prevent possible harassment by multiple assignees. See
In re Goodman, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); In re Longi, 759
F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); In re Van Ornum, 686 F.2d 937, 214
USPQ 761 (CCPA 1982); In re Vogel, 422 F.2d 438, 164 USPQ 619 (CCPA
1970); and, In re Thorington, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).
A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be
used to overcome an actual or provisional rejection based on a nonstatutory double
patenting ground provided the conflicting application or patent is shown to be
commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a
terminal disclaimer. A terminal disclaimer signed by the assignee must fully
comply with 37 CFR 3.73(b).

6.   Claim 1 in the current application is provisionally rejected under the
judicially created doctrine of obviousness-type double patenting as being
unpatentable over claims of US Patent No. 7,209,916. Although the conflicting
claims are not identical, they are not patentably distinct from each other, from the
comparison listed in the following table:

US Patent No. 7,209,916	Current-Application (10/693,735) US 2005/0091269 A1
Claim 1	Claim 1

1. A notification system comprising a computer processor for executing the following software components, the system is recorded on a computer-readable medium and capable of execution by a computer, comprising:	A preference execution system comprising:
an agent component that processes received events and subscription information, the agent employing the events and subscriptions as data prior to processing so as to facilitate event and subscription processing;	
a rules processor component associated with the agent component to perform automated actions in accordance with the processed events, subscription information and one or more rules, the one or more rules **capture a user's preference for performing the automated actions**, the rules processor component comprises one or more rule templates that are configured via one or more rule parameters to perform the automated actions, the rule parameters include a subscriber id, a match action, and a match parameter, and wherein the one or more rules are modeled as parameterized queries that join the data, the rules processor performs an SQL join operation that matches conditions indicated by the data in accordance with preferences defined by the one or more rules; and	a data store component for **storing schematized data and end-user specified preferences**; a compiler to compile information agent applications including end-user specified preferences and store the compiled information agent applications in the data store; an **execution engine** to retrieve preferences stored in the data store upon the occurrence of one or more events and to utilize the preferences and at least one stored procedure to query tables within the data store and produce a results table, wherein the results table stores preferences whose conditions have been satisfied such that specified actions are triggered based on the stored preferences; and
a context analyzer component that analyzes information regarding variables and parameters of a user that influence notification decision-	**a context analyzer that stores and analyzes information regarding variables and parameters of a user that influence notification decision-**

Claim 1 of current application is anticipated by US Patent No. 7,209,916, claim 1
in US Patent No. 7,209,916 that contain all the limitations of the current
application claims. Claim 1 of the current application therefore is not patentably
distinct from US Patent No. 7,209,916 claim 1 and as such is unpatentable for
obvious-type double patenting.

Response to Arguments

7.   Applicant's arguments with respect to claims 1-14, 16-18, and 23 have been
considered but are moot in view of the new ground(s) of rejection necessitated by
Applicant's amendments to the claims.

8.   The examiner has reviewed the updated amendments, and noted that the
amendment has changed the scope of the claims, therefore a new prior art has to be
introduced. See 35 USC § 103 rejections (claims include the amendments) herein
below.

Claim Rejections - 35 USC § 103

9.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for
all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section
> 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the
> subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill
> in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the
> invention was made.

10.   Claims 1-5, 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable
over US Patent No. 6,745,180 B2, by Yamanoue, hereinafter "Yamanoue", in view
of US Patent No. 6,920,616 by Abbott et al., hereinafter "Abbott".

As Per claim 1,

- (Currently Amended) *A preference execution system comprising:*
a data store component for storing schematized data and end-user
specified preferences;

Yamanoue's disclosure stores user preference data, see Yamanoue 's column
1, lines 8-15, "The present invention relates to a data supply controlling
device, a data supplying method, **a storage medium** *(a data store)* **storing** a
data supplying program, and a data supplying system, in which a system is
used which searches for information (of books, for instance) using a data
supplying device and provides search results to the user (user terminal) via
the data supply controlling device in such a manner to **provide information**
suitable for user's preference and interest by referring to user data". And
see Yamanoue's column 29, lines 14-20, "Incidentally, Japanese Examined
Patent Publication No. 2976219 discloses that user data is recorded, for
instance, in a storage medium such as IC memory, and the **user data stored**
in the storage media above is read by a terminal of the user when a search
for commercial information is conducted, and then a host computer conducts
an information search by picking up only required data from the user data."--
wherein the **storage medium** is as a the 'data store'; as to the schematized
data, any "data, logic, events, inter alia, are all schematized", see the citation
in the current application Abstract, and paragraph [0010], "**Schematization**
is the structuring of data in well-known and well-defined patterns, which
enables multiple applications to recognize and interact with each other."

- *a compiler to compile information agent applications including end-user specified preferences and store the compiled information agent applications in the data store; ~~and~~*

See Yamanoue's column 22, lines 5-8, "After the **data compiled** or read in S64 or S65is sent to the user terminal 1 by the data supplying means 41", and column 22, lines 17-20, "if the user selects to see data in the user terminal 1 (end-user specified preferences) in the manner of the data browse in S67, the data to be browsed is compiled (S68) and immediately transferred to the user terminal 1 (S69)"; it's inherent that data has to be compiled by a compiler. Further see Yamanoue 's claim 1, "A data supply controlling device, comprising: user **data storage means for storing user data** for each user who is to be supplied with information through a user terminal (end-*user specified preferences*); query generating means for generating, based on at least the user data, a query for a data supplying device to search for the information; search result **storage means for storing a result of a search** conducted by the data supplying device for the information in accordance with the query; identifying data management means for managing identifying data by which each user can be identified, separately from user specifying data by which each user can be specified; and data supplying means for generating a search result matched with the identifying data of the user from the search result stored in the search result **storage** means".

- *an execution engine to retrieve preferences stored in the data store*

upon the occurrence of one or more events and to utilize the preferences and at least one stored procedure to query tables within the data store and

produce a results table, wherein the results table stores preferences whose
conditions have been satisfied such that specified actions are triggered
based on the stored preferences; and

See Yamanoue's Fig. 12 and column 19, lines 30-35, "The query
management means 37 registers queries which are not merged in S53 in the
query DB 36, and also modifies/deletes queries registered in the query DB
36, when the query management means 37 determines that the queries are
not used by a user possessing another user ID, by **using a query**
management table *(stored procedure to query tables within the data store*
and produce a results table)"; further, see Fig. 13, and column 11, lines 28-
30, "The user specifying data management means (user specifying data
management means) 42 manages user specifying data which can specify
each user. Also, the means 42 is used when recording/reading the **user**
specifying data to/from, for instance, a removable storage medium, and the
means 42 manages the user data in a condition that online access from
outside is not available" (retrieving the preferences from the data store); and
column 15, lines 42-56, "The query generator 35 of the search service center
3 reads data of modification/updating of the queries that are set by using the
user terminal 1 and also data that registered in the user data DB 32, the
search rule DB 34, and the query DB 36 that are needed to modify/update
the queries (S45), and the query generator 35 automatically generates
queries matched with the user ID (S46)… Then the query management
means 37 registers the queries generated in S46 in the query DB 36 again.
Meanwhile, the user data management means 33 registers data, for providing
data matched with a user ID (data to generate the exclusive query and the

filtering query that are both described later), in the user data DB 32, as search result filtering data 59 (S47)", and Yamanoue's Abstract, "The data base of user data can be queried in accordance with the user data so that a data server performs a search according to the query and stores the search results in **a search result data base**."– search within the data store (**user data DB**) via query DB (**query tables**), the results are produced in a results table (**search result data base**), wherein the preferences are similar as 'search rules'. Further, see Yamanoue's column 28, lines 42-46, "the stored program may be arranged to be **executed by an access of a microprocessor** (not illustrated), or arranged so that **the program is executed** *(execution engine to evaluate the stored preferences)* by reading the stored program and then downloading the read program to a program storage of a delivery server and a receiving server." Basically Yamanoue's disclosure as specified in his claim 38, "A **storage medium** *(data store)* for **storing a data supply program executed** *(execution engine)* by a computer to implement a method of supplying data, the method comprising the steps of: **storing,** in user data storage means, user data for each user who is to be supplied with information through a user terminal *(store data upon the occurrence of one or more events);* generating, based on at least the user data, a query for a data supplying device to search for the information; **storing, in search result storage means**, a result of a search conducted by the data supplying device for the information in accordance **with the query**".

-   *a context analyzer that stores and analyzes information regarding variables and parameters of a user that influence notification decision-*

__making, the parameters comprise contextual information, such as the__
__user's typical locations and attentional focus, activities per time of day and__
__day of week, devices users tend to have access to in different locations, and__
__a user's preference as to being disturbed by notifications of different types__
__in different settings, and the parameters also comprise functions of__
__observations made autonomously via one or more sensors and dynamically__
__inferred parameters, the parameters are stored as a user profile that can__
__be edited by the user or users can specify in real-time their state.__

Yamanoue teaches all aspects of claim 1, but he does not disclose 'context

analyzer' explicitly, however, Abbott teaches this feature in an analogous

prior art; see Abbott's column 3, lines 21-25, "a characterization module

operating in a wearable computer system **receives context information**

(receive contextual information), in the form of individual attributes each

modeling an aspect of the wearable computer system, its user, or the

surrounding environment, from one or more **context servers**, and provides it

to one or more context clients." And column 9, lines 59-62, "For example,

when **the location_region_analysis context** server calls the

LaunchContextServer function, the characterization module preferably adds

row 403 to the context server table. The contents of row 403 indicate that

version 1.00.315 of the **location_region_analysis context server**" further in

column 10, lines 39-67, "… a **timestamp** 515 indicating the **time** at which

the value is effective, and a units field 516 identifying the units for the value

and the uncertainty. For example, row 501 indicates that an instance of the

user.location attribute from the **gps context server** has the effective time of

13:11:04.023 on Feb. 22, 2000. **.. the user's location,** expressed in terms of

latitude and longitude, is maintained in a single attribute. In alternative
embodiments, such **a location** could be **maintained in a larger number of
attributes.** For example, rather than being maintained in a single
user.location attribute, such **a location** could be distributed across four
separate attributes:

**user.location.latitude.degrees, user.location.latitude.minutes,
user.location.longitude.degrees, and user.location.longitude.minutes**.
The characterization module preferably adds row 504 to the attribute
instance table when the **location_region_analysis context server** calls the
CreateAttributeInstance function for the **user.in_region attribute** (*such as
the user's locations, attentional focus, time…etc*)". Also see Abbott's
column 6, lines 51-53, "The model of the current conditions can additionally
include information added explicitly from other sources (e.g., application
programs), as **well as user-specified or system-learned defaults and
preference information**." Further see Abbott's column 4, lines 23-
25, "the characterization module requests an **updated value for the
attribute instance** from the corresponding context server before performing
any necessary mediation and returning a value to the context client *(a user
profile that can be edited by the user or users)*" – The context server
provides context analysis functions using the user's location and time.
Parameters also comprise contextual information, see Fig. 10 and description
in Abbott's column 3, lines 3-5, "FIG. 10 is a data structure diagram
showing a condition table that contains a portion of the state of the
characterization module. (*the parameters are stored as a user profile)*" For
sensor feature, see Abbott's column 5, lines 50-53, "In addition to the

various user-worn user input devices, the computer can also receive information from **various user sensor input devices** 116 and from **environment sensor input devices** 128".

It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to supplement Yamanoue's disclosure of the method of extracting event from event source and storing preference data in data store by using context analysis taught by Abbott. The modification would be obvious because one of ordinary skill in the art would be motivated by additionally include context information including user's preferences, user sensor information, user's location and specific time. (See Abbott's column 6, lines 50-53).

As Per claim 2,

- *The system of claim 1, further comprising an action component for Taking one or more actions specified by a conditionally valid preference.*

Claim 1 rejection is incorporated, conditionally valid preference is disclosed in Yamanoue's 'search rules', see Yamanoue's Fig. 1 and description, and example in column 8, lines 49 into column 9, "**If** the data server 2 is a server searching information of books as in the present embodiment, as the **search rule** described above, the search rule generator 24 sets a rule that enables the search service center 3 to generate queries, which are capable of searching information of books, on the basis of the user data.", couple 'IF' conditions are assessed (column 8, lines 56-62) from Data Server 2, further actions are taken at Search Service Center 3. The **query rules** specified in FIG. 3 can all considered as 'conditionally valid preference'.

As Per claim 3,

- *The system of claim 2, the action component comprising a notification component that transforms and formats notification data generated by the execution engine based on a user preference for one or more user communication devices.*

Claim 2 rejection is incorporated, Yamanoue's disclosure including a 'search result management' component, which would transform and form notification data generated by the execution engine based on a user preference on a user's communication device, see Yamanoue's FIG 1, and FIG. 16, and description in column 8, lines 12-21, "The search result management means 13 (a *notification component*) stores the search results being **transferred from the search service center 3 to the user terminal 1**" and "…The **display 15 offers a GUI (Graphical User Interface) for various operations and displays search results**, and includes a PC monitor, for instance."

As Per claim 4,

- *The system of claim 1, wherein the communication devices include a mobile phone, a pager, a PDA, and a computer.*

Claim 1 rejection is incorporated, Yamanoue's teaching include a computer or a mobile phone, see Yamanoue's column 7, lines 34-40, "The user terminal 1 is used by the user being provided data by the present system. What can be used as the terminal 1 are, for instance, **devices owned by the users and can be connected to the network 4 such as a PC (personal**

computer), a **mobile information terminal** and **a mobile phone**, and also a
dedicated terminal capable of being used in the system."

As Per claim 5,

- *The system of claim 1, further comprising an event component to*
Extract event data from an event source and store the data in the data
store.

Claim 1 rejection is incorporated, each data storage or data query/retrieval in
Yamanoue's disclosure is considered as an event, see column 3, lines 38-59,
"A data supply controlling device in accordance with the present invention,
in order to accomplish the foregoing objective, is characterized in that it
includes: **a user data storage section for storing user data** for each user
who is to be supplied with information through a user terminal" – the data
supply controlling device serves as an event component, which can extract
event data from the input source and store the data in the data store.

As Per claim 11,

- *The system of claim 1, the execution engine evaluates preferences by*
executing queries on data stored in the data store.

Claim 1 rejection is incorporated, for rest of claim 11 feature see
Yamanoue's Abstract, "A data supply controlling device comprises **a data**
base for user data which stores user data matched with each user. The
data base of user data can be queried *(executing queries on data stored in*
the data store) in accordance with the user data so that a data server
performs a **search according to the query and stores the search** results in

a search result data base." and column 4, lines 46-55, "storing, in a user data storage section, user data for each user who is to be supplied with information through a user terminal; generating, based on at least the user data, a **query to search** data supplied from a data supplying device; **searching for information in accordance with the query;** *(executing queries)* storing a search result in a search result storage section".

As Per claim 12,

- *The system of claim 1, wherein end-user preferences are based on a developer specified schema.*

Claim 1 rejection is incorporated, for rest of claim 12 feature see Yamanoue's FIG 2 and description in column 12, lines 25-28, "The **user defined data** 61 is data that the **user can designate** in relation to a data search, for each of the following items such as: an each user's **search rule to generate queries: an alteration of the generated search** rule; and frequency to conduct the search." – the user specified schema.

As Per claim 13,

- *The system of claim 12, wherein information regarding end-user preferences and the developer schema are stored in one or more tables in the data store.*

Claim 12 rejection is incorporated, for rest of claim 13 feature see Yamanoue's column 19, lines 9-11, "Then the query management means 37 stores the filtering query matched with each user ID, which is **stored in the**

user data DB 32, in a **user ID table**". – preference data stored in one or more tables in the data store.

11.   Claims 6, 8, 9, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,745,180 B2, by Yamanoue, hereinafter "Yamanoue", in view of US Patent No. 6,920,616 by Abbott et al., hereinafter "Abbott"; Further in view of U.S. 2003/0126136 A1 by Omoigui, hereinafter "Omoigui".

As Per claim 6,

-   *The system of claim 5, wherein the event source is a subscription service.*

For claim 5 feature see claim 5 rejection, Yamanoue and Abbott teaches all aspects of claim 6, but they do not disclose 'event source is a subscription service' explicitly, however, Omoigui teaches this feature in an analogous prior art; see Omoigui's paragraph [0254], "Network News Transfer Protocol (NNTP). … NNTP is designed so that news articles are stored in a central database **allowing subscribers to select only those items they wish to read.**" And [0267], "this refers to all the data stored on users' local machines, in addition to user-specific data on an Agency server (e.g., **subscribed** server-side Agencies, server-side Favorite Agents, etc.)." and [0801], "allows users to browse, **subscribe,** and unsubscribe to or from Agents on a given Agency that supports User State."

It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to supplement Yamanoue's and Abbott's disclosures of the method of storing preference data in data store, and extract

preference event from event source, using context analyzer stores and analyzes information regarding variables and parameters by the event source as a subscription service taught by Omoigui. The modification would be obvious because one of ordinary skill in the art would be motivated by delivering the user preference event data only to the interested parties, i.e. subscribed users/agents. (See Omoigui's paragraph [0267]).

As Per claim 8,

- *The system of claim 1, ~~further comprising a~~ wherein the context analyzer to produce context data indicative of an end-users context at a given time and store the context data in the data store.*

Claim 1 rejection is incorporated, Yamanoue and Abbott teaches all aspects of claim 6, but they do not disclose 'context analyzer at a given time' explicitly, however, Omoigui teaches this feature in an analogous prior art; see Omoigui's Abstract, "The system includes a first server component that is responsible for adding and maintaining domain-specific semantic information and a second server component that hosts semantic and other knowledge for use by the first server component that work together **to provide context and time-sensitive semantic information retrieval services to clients** operating a presentation platform via a communication medium."; see Omoigui's paragraph [0009], "Regardless of the search technique, the underlying organization of searchable information is **index-driven rather than context-driven.** The frequency or type of textual information associated the document determines the search results, as opposed to the attributes of the subject matter of the document and how

those attributes **relate to the user's context**. (*end-users context*)". Also see Omoigui's paragraph [0255], "The notification source (the client or server) **stores information for the user** and the Agent indicating the last time (*stores data at a given time*) the user acknowledged a notification for the Agent".

It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to supplement Yamanoue's disclosure of the method of storing preference data in data store, and extract preference event from event source and store the data in data store, by the turning the available data into an end-users context, i.e. usable knowledge, taught by Omoigui. The modification would be obvious because one of ordinary skill in the art would be motivated by turning the data into meaningful context and efficient access for the users. (See Omoigui's paragraph [0006]).

As Per claim 9,

- *The system of claim 1, further comprising one or more APIs to interact with applications.*

Claim 1 rejection is incorporated, Yamanoue teaches all aspects of claim 9, but he does not disclose 'one or more APIs to interact with applications' explicitly, however, Omoigui teaches this feature in an analogous prior art; see Omoigui's paragraph [0206], "**Application Programming Interface (API)**. Defines how software programmers utilize a particular computer feature. **APIs** exist for windowing systems, file systems, database systems, networking systems, and other systems."

It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to supplement Yamanoue's disclosure of the method of storing preference data in data store, and extract preference event from event source and store the data in data store by using APIs to interact with applications taught by Omoigui. The modification would be obvious because one of ordinary skill in the art would be motivated by using APIs to capture input information, such as command parameters (See Omoigui's paragraph [0586]).

As Per claim 10,

- The system of claim 1, wherein the compiler can compile and the execution engine can execute both heavyweight applications and lightweight preference applications.

Claim 1 rejection is incorporated, Yamanoue teaches all aspects of claim 10, but he does not disclose 'execute both heavyweight applications and lightweight preference applications' explicitly, however, Omoigui teaches this feature in an analogous prior art; according to the description of the current application, paragraph [0011], "Heavyweight applications include those that are often run on high-end servers and require high-throughput and scalability, among other things. Lightweight applications are those that are often executed on smaller systems such as personal computers and require low-latency, a small database footprint, and small working set." Omoigui teaches the knowledge retrieval system runs on both the high-end servers and the 'smaller systems', see Omoigui's FIGURE 7, and paragraph [0008], "Information access further improved with the advent of the **Internet, which**

connects a large number of computers across diverse geography to provide access to a vast body of information *(heavyweight applications).* The most wide spread method of providing information over the Internet is via the World Wide Web. The Web consists of a subset of the computers or Web servers connected to the Internet that typically run Hypertext Transfer Protocol (HTTP), File Transfer Protocol (FTP), GOPHER or other servers." And Omoigui's paragraph [0244], "**Lightweight Directory Access Protocol** (LDAP). Technology for accessing common directory information. LDAP has been embraced and implemented in most network-oriented middleware. As an open, vendor-neutral standard, LDAP provides an extendable architecture fo**r centralized storage and management of information** *(smaller systems such as personal computers and require low-latency, and small working set)* that needs to be available for today's distributed systems and services. LDAP is currently supported in most network operating systems, groupware and even shrink-wrapped network applications."

It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to supplement Yamanoue's disclosure of the method of extracting event from event source and storing preference data in data store by using both heavyweight and lightweight applications taught by Omoigui. The modification would be obvious because one of ordinary skill in the art would be motivated by presenting data to both low-end and high-end servers (See Omoigui's paragraph [0022]).

12.   Claims 14, 16-17 are rejected under 35 U.S.C. 103(a) as being anticipated by prior art of record, Knutson et al. (U.S. Patent No. 5,870,746), hereinafter

"Knutson"; in view of US Patent No. 6,920,616 by Abbott et al., hereinafter "Abbott".

As Per claim 14,

- (Currently Amended) *A method for application installation comprising: establishing a set of base tables in a data store;*

Knutson anticipates independent claim 14 by the following:

See Knutson's at col. 7, lines 53-54.

See Knutson's col. 62, lines 36-37 and col. 8, lines 11-13.

- *storing program actions, conditions, events and procedures as data in the data store; and*

'conditions, events, and procedures as data' is taught by Knutson at col. 8, lines 11-13, col. 7, lines 16-19, and col. 22, lines 22-31.

- *updating the base tables with application data associated with an application being installed by retrieving program text from the data store and executing the program text;*

This feature is taught by Knutson at col. 7, lines 16-19 and col. 5, lines 25-27. The term "background" is used to suggest the term "context".

- *wherein the application employs user defined preferences via a context analyzer that stores and analyzes information regarding variables and parameters of a user that influence notification decision-making.*

Knutson teaches all aspects of claim 14, but he does not disclose 'context analyzer' explicitly, however, Abbott teaches this feature in an analogous prior art; see Abbott's column 3, lines 21-25, "a characterization module operating in a wearable computer system **receives context information** *(receive contextual information),* in the form of individual attributes each

modeling an aspect of the wearable computer system, its user, or the
surrounding environment, from one or more **context servers**, and provides it
to one or more context clients." Also see Abbott's column 6, lines 51-53,
"The model of the current conditions can additionally include information
added explicitly from other sources (e.g., application programs), as **well as
user-specified or system-learned defaults and preference information**."
Parameters also comprise contextual information, see Fig. 10 and description
in Abbott's column 3, lines 3-5, "FIG. 10 is a data structure diagram
showing a condition table that contains a portion of the state of the
characterization module. (*the parameters impact decision -making)*"
It would have been obvious to a person of ordinary skill in the art at the time
of the invention was made to supplement Knutson's disclosure of the
method of extracting application data associated with an application being
installed by retrieving program text from the data store by using context
analysis taught by Abbott. The modification would be obvious because one
of ordinary skill in the art would be motivated by additionally include
context information including user's preferences, user sensor information,
user's location and specific time. (See Abbott's column 6, lines 50-53).

As Per claim 16, Knutson discloses:

- *The method of claim 14, wherein application data includes application
procedures that are stored as data.*
Claim 14 rejection is incorporated, further see Knutson's Abstract, lines 11-
16, wherein the application program is the same as the application
procedures.

As Per claim 17, Knutson discloses:

- *A computer readable medium having instructions stored thereon for carrying out the method of claim 14.*

Claim 14 rejection is incorporated, further see Knutson's col. 64, lines 61-64.

13.   Claims 18 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamanoue and Abbott as applied to claim 1 above, and further in view of Bailey ("An Event-Condition-Action Language for XML").

As Per claim 18,

- *(Currently Amended) A method for employing preferences comprising: specifying user preferences regarding an information agent application based on a developer schema;*

See Yamanoue's claim 2, "the data supply controlling device as set forth in claim 1, further comprising user specifying data management means for managing the user specifying data".

- *storing the preferences and schematized data in one or more tables in a data store;*

See claim 1 'storing schematized data and end-user specified preferences' feature rejection above.

- *querying the tables in the data store upon occurrence of an event and retrieving preferences stored in the data store;*

See 'query tables' feature rejection in claim 1.

- producing a results table, wherein the results table stores preferences whose conditions have been satisfied such that specified actions are triggered;

See 'results table' feature rejection in claim 1.

and executing actions based on the results table;

See 'execution engine' feature rejection in claim 1.

utilizing a context analyzer that stores and analyzes information regarding variables and parameters of a user that influence notification decision-making, the parameters comprise contextual information, such as the user's physical locations and attentional focus, activities per time of day and day of week, devices user tend to have access to in different locations, and a user's preference as to being disturbed by notifications of different types in different settings, and the parameters also comprise functions of observations made autonomously via one or more sensors and dynamically inferred parameters; and

storing the parameters as a user profile that can be edited by the user or allowing users to specify in real-time their state;

Abbott teaches For context analyzer feature see claim 1 rejection above.

- wherein user preferences are specified by utilizing a one-at-a-time declarative programming model, wherein user preferences are specified using one or more On-event-If-Then statements and Boolean operators to specify conditions and actions, wherein querying the tables comprises

executing query_ language statements, the developer schema is an XML schema.

Yamanoue and Abbott teach all aspects of claim 18, but they do not teach 'On-Event-If_Then' and 'XML', however Bailey teaches the use of on event if condition then action statements and the use of Boolean operators" in a analogous prior art, see Bailey's under 2. 'The ECA Rule Language', "...On event if condition do actions. Rather than introducing yet another query language for XML, we use the XPath [32] and XQuery[33] languages to specify events, conditions and actions within our ECA rules. XPath is used in a number of W3C recommendations, such as XPointer, XSLT and XQuery itself, for selecting and matching parts of XML documents and so is well-suited to the requirements of ECA rules. XQuery is used in our ECA rules only where there is a need to be able to construct new fragments of XML. We define each of the components of our ECA rule language below, give some example rules, and describe the rule execution semantics..." at sec. 2. "...The condition part of an ECA rule is either the constant TRUE, or one or more simple XPath expressions connected by the boolean connectives and, or, not..." at section 2.2.

It would have been obvious to one of ordinary skill at the time of the invention to combine Bailey with Yamanoue and Abbott to use "on event if condition do actions" syntax and Boolean operators in order to use commonly accepted software systems and gain greater acceptance from potential users. Yamanoue, Abbott, and Bailey have related applications. They teach the use of computers, the use of databases, the use of networks, the use of markup languages, the use of schema, the use of pointers, and the

use of relationships. Yamanoue and Abbott provide data stores, folders, links, relationships, context information analysis and preferences and Bailey provides "on event if condition do actions" syntax and Boolean operators.

As Per claim 23,

- *A computer readable medium having instructions stored thereon computer executable instructions for executing the method of claim 18.*
Claim 18 rejection is incorporated, for rest of claim 23 feature see Yamanoue's col. 7, lines 4-5.

Conclusion

14.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Josephson, US 2003/0,023,435, discloses aspects of the invention provide for interfacing one or more users or groups of users with one or more machines or groups of machines in a manner adaptable to conventional and non-conventional control and data entry capabilities, and that can be used alone and in conjunction with other interfacing elements, approaches and operabilities.

Seshadri et al., US Patent No. 7,360,202, discloses a system and methodology to facilitate development, debug, and deployment of a notification platform application. This includes providing various editor and display tools that interact with diverse components of the application in the context of a dynamic framework and development environment adapted to the nuances of the components. Visual displays and interfaces are provided that depict the various components of an application along with the relationships between the

components. Developers are then directed though the components of the
application in a visual manner, wherein various editors can be invoked to design a
portion of the application relating to the selected component.

15.   The following summarizes the status of the claims:

        35 USC § 103 rejection: Claims 1-6, 8-14, 16-18, 23

        Applicant's amendment necessitated the new ground(s) of rejection
presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**.
See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as
set forth in 37 CFR 1.136(a).

        A shortened statutory period for reply to this final action is set to expire
THREE MONTHS from the mailing date of this action. In the event a first reply is
filed within TWO MONTHS of the mailing date of this final action and the
advisory action is not mailed until after the end of the THREE-MONTH shortened
statutory period, then the shortened statutory period will expire on the date the
advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will
be calculated from the mailing date of the advisory action. In no event, however,
will the statutory period for reply expire later than SIX MONTHS from the date of
this final action.

        Any inquiry concerning this communication or earlier communications from the
        examiner should be directed to Chih-Ching Chow whose telephone number is
        571-272-3693. The examiner can normally be reached on 8:30am - 5:00pm.

        If attempts to reach the examiner by telephone are unsuccessful, the
examiner's supervisor, Wei Zhen can be reached on 571-272-3708. The fax phone

number for the organization where this application or proceeding is assigned is
571-273-8300. Any inquiry of a general nature of relating to the status of this
application should be directed to the **TC2100 Group receptionist: 571-272-2100**.

   Information regarding the status of an application may be obtained from the
Patent Application Information Retrieval (PAIR) system. Status information for
published applications may be obtained from either Private PAIR or Public PAIR.
Status information for unpublished applications is available through Private PAIR
only. For more information about the PAIR system, see http://pair-
direct.uspto.gov. Should you have questions on access to the Private PAIR system,
contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Chih-Ching Chow/
Examiner, Art Unit 2191
06/03/2008
/Wei Zhen/
Supervisory Patent Examiner, Art Unit 2191